

MYCOTAXON

Volume 112, pp. 491–503

April–June 2010

BOOK REVIEWS AND NOTICES

Compiled by

ELSE C. VELLINGA¹

bookreviews@mycotaxon.com

861 Keeler Avenue, Berkeley CA 94708-1323, U.S.A.

INTRODUCTION

This installment of BOOK REVIEWS AND NOTICES focuses on two different topics, ascomycetes in different parts of the world, and mushroom guide books from North America. A checklist of the non-lichenized species occurring in Sweden (free to download from the author's web site) and several books on taxonomically or ecologically defined lichen groups are treated in the first part, followed by the review of field oriented guides. The present selection of guides covers the southeast, the northwest, the northern plains in between, the oak associated mycoflora of the eastern U.S.A., and the genus *Lactarius*. The books are as different in layout, user friendliness, and approach as their subjects. Guides are the ideal medium to familiarize amateur mycologists with the huge changes that have recently taken place in the classification of fungi. But the main purposes are to provide accurate names and especially to introduce non-mycologists to the diversity and beauty of this fascinating group of organisms.

A list of recently published books to be included in future reviews is given at the end.

ASCOMYCETES

The non-lichenized Ascomycetes of Sweden. By O.E. Eriksson. 2009. Department of Ecology and Environmental Science, Umeå University, SE-901 87, Umeå, Sweden. <ove.eriksson@emg.umu.se>. Pp. 461, maps 1. ISBN 978-91-7264-989-2. Price not indicated; free for download at <http://www8.umu.se/myconet/asco/asco_pdfs/indexPDF.html>

¹ Books for consideration for coverage in this column should be mailed to the Book Review Editor at the address above. All unsigned entries are by the Book Review Editor.

While the non-lichenized pyrenomycetes and the lichenized fungi known from Sweden have been summarized in relatively recent checklists (Eriksson 1992, Santesson et al. 2004), no overall listing of the phylum has been appeared since that of Fries (1849), something Nannfeldt (1936) commented was a “deplorable state” over 70 years ago. This new checklist remedies this situation, covering all non-lichenized ascomycetes except lichenicolous genera (unless they also include non-lichenicolous species; others being covered in Santesson et al. 2004) and yeasts. It enumerates 2692 species placed in 772 genera and dispersed through 159 families. The genera are, thankfully, all treated alphabetically, but a synopsis by subphylum, class, order, and family is provided at the start. By each generic name, the family placement is indicated, and there is also a letter to indicate the type of spore-bearing structure (e.g. “D” for discomycetes). For each species, information is included in the categories of synonyms, citations in the works of Fries, references to literature, exsiccate citations, host or habitat, distribution (by provinces, or for new records with specimen details), anamorph, and notes. No new scientific names are introduced in the work.

The notes section often includes important and new information or corrections relating to bibliography, nomenclature, or taxonomy — for instance the retention of *Trichothyria* as distinct from *Lichenopeltella*, as *T. alpestris* has setae with a furrow not seen in *Lichenopeltella* species. Detailed notes are provided on 112 “Excluded species” (pp. 297–306), some of which will require more work to resolve conclusively. The bibliography is most impressive at 53 pages and will be an immediate source of elusive references for workers on these fungi. The work ends with a massive 99-page epithet-index to both accepted names and synonyms. One thing that is missing here, however, and which was an especially useful feature of Eriksson’s earlier pyrenomycete checklist, is a listing of species by their host organisms; that would add enormous value to any future edition, but at least Eriksson (1992) can be consulted for such information on the pyrenocarpous representatives. I would also have included the dates of publication of at least all the accepted names, as in the British checklist (Cannon et al. 1985), but appreciate that would have involved much additional work and that this can now be obtained at no cost from the *Index Fungorum* website if required.

The work has, characteristically, been meticulously prepared and involved much scouring of not only publications but also herbaria. But that does not mean that there are no slips, as is always inevitable in such a fact-packed work. I will not make any enumeration here, but as it concerns a subheading I do point out that it should be “Subphylum” not “Subclass” before *Pezizomycotina* on p. 7. Additionally, author citations of species names are given for infraspecific taxa other than those including the type, which is contrary to the practice in the CODE (e.g. the “Lib.” should have been omitted in “*Acrospermum graminum*”).

Lib. var. *decipiens* (Pass.) O.E. Erikss.” on p. 21). Corrections and updates are already being reported on the web pages devoted to the project (<<http://www8.umu.se/myconet/asco/indexASCO.html>>).

Today, fungi with no known sexual structures can be placed by molecular phylogenetic methods within the ascomycete system based on the sexual stages. This means that in the future such phylum-based checklists should logically include the hordes of fungi known only in the mitosporic state. This would involve a major expansion of ascomycete checklists in the future, and here Eriksson has, as a matter of policy, included only taxa represented by the teleomorph in Sweden — with the exception of members of *Erysiphales* “where we can expect that the teleomorph will be found” (p. 4). The names of anamorphs for species found forming teleomorphs in the country are, however, provided as noted above.

Although this list may seem enormous in comparison with the checklists for non-lichenized ascomycetes in many other countries, it constitutes a huge stride towards the elusive goal of a full national inventory. It is now **the** key reference work for anyone concerned with non-lichenized ascomycetes in Sweden, and all ascomycologists and conservationists should be indebted to Ove for the herculean effort he has put in bringing this task to publication.

Cannon PF, Hawksworth DL, Sherwood-Pike MA. 1985. The British *Ascomycotina*: an annotated checklist. Slough: Commonwealth Agricultural Bureaux.

Eriksson OE. 1992. The non-lichenized Pyrenomycetes of Sweden. Lund: SBT-förlaget.

Fries EM. 1849. Summa Vegetabilium Scandinaviae. Vol. 2. Stockholm: A. Bonnier.

Nannfeldt JA. 1936. Contributions to the mycoflora of Sweden 3. Some rare or interesting inoperculate discomycetes. Svensk Botanisk Tidskrift 30: 285-306.

Santesson R, Moberg R, Nordin A, Tønsberg T, Vitikainen O. 2004. Lichen-forming and lichenicolous fungi of Fennoscandia. Uppsala: Museum of Evolution, Uppsala University.

DAVID L. HAWKSWORTH

Departamento de Biología Vegetal II, Facultad de Farmacia

Universidad Complutense de Madrid, Plaza Ramón y Cajal, 28040 Madrid, Spain

Lichens. By H. Thüs & M. Schultz. 2009. Spektrum Akademischer Verlag, Tiergartenstraße 17, 69121 Heidelberg, Germany. <scsc-books@springer.com>. Pp. 209, plates 6, figs 171. Süßwasserflora von Mitteleuropa. Vol. 21. *Fungi*. Part 1. ISBN 978-3-8274-1594-3. Price: € 64.95, CHF 94.50.

This series, eventually comprising 24 volumes, some with several separately bound parts, aims to cover the freshwater “flora” of Central Europe. It is a classic reference work for algologists, with 19 of the volumes dealing with different algal and cyanobacterial groups. It is pleasing to see lichens included in this prestigious work, and especially as they appear as the first part in the volume on “*Fungi*”. The book aims to be a tool for the identification of all

freshwater lichens occurring in Central Europe, and the introduction notes the categories of aquatic (able to survive under water for more than a year), amphibian (occurring in splash zones), riparian (living close to, but never in, water), and terrestrial (with a low tolerance of submersion). Ecological factors affecting occurrences are outlined, including pH, nutrients, and sediments, but somewhat surprisingly nothing on zonation patterns or the use of lichens in assessments of river capacities. Following a clearly presented glossary, there is a “General key” which, in addition to the genera treated, includes 23 lichens that are not — notably in the genera *Catillaria*, *Lecanora*, and *Physcia*. The main body of the work, however, comprises “keys to species and species profiles”. Thirty-six genera are treated alphabetically, pyrenocarpous ones predominating, with *Thelidium* and *Verrucaria* as the most speciose genera with 18 and 24 species respectively. The latest generic concepts are employed, with, for example, the acceptance of *Hydropunctaria* and *Sporodictyon*.

Each generic account cites the pertinent literature followed by sometimes extensive discussion on status or circumscription, followed by a key to the treated species. As in the “General key”, species not accorded separate entries are sometimes included in these keys. For each species there is information on synonyms, a description, notes on ecology and distribution, and most importantly notes on separations from other similar species. In a few instances “s.l.” is used to embrace groups of closely allied and difficult to separate species (e.g. *Verrucaria margacea* s.l.). Author citations of scientific names are given with the year of publications throughout, whether accepted names or synonyms — an increasing practice that merits general adoption. There are schematic diagrams of sections of vertical sections of perithecia in some genera and fine half-tone macro-photographs showing the habit of the species as they would be seen in the field with a hand lens. The half-tones are supplemented by six colour plates at the end of the book — more use of colour should be considered for any future edition. The collection details of all figured specimens are included, together with an indication of the herbarium in which they are preserved — something too often missing in illustrated guides.

The book is authoritative, comprehensive, pocket-sized, strongly bound, and entirely in English. Also, while focussed on central Europe, it must be pointed out that many of the taxa have wide distributions in Mediterranean, western, and northern Europe in particular, as well as other continents. This work consequently has the potential to generate a renewed interest in the so often neglected freshwater lichens not only by lichenologists, but further by ecologists freshwater biologists, and geographers internationally.

DAVID L. HAWKSWORTH

*Departamento de Biología Vegetal II, Facultad de Farmacia
Universidad Complutense de Madrid, Plaza Ramón y Cajal, 28040 Madrid, Spain*

Taxonomical Revision of the *Caloplaca saxicola* group (*Teloschistaceae*, lichen-forming fungi). By E. Gaya. 2009. J. Cramer in der Gebrüder Borntraeger Verlagsbuchhandlung, Johannesstraße 3A, 70176 Stuttgart, Germany. <mail@schweizerbart.de>. Pp. 191, plates 36 (5 col.), figs 2. Bibliotheca Lichenologica No. 101. ISBN 978-3-443-58080-3. Price: € 73.00.

This has been a taxonomically confusing group, with great uncertainty over the application of names, and so this worldwide revision was much needed. The group comprises saxicolous species that are lobate-effigurate and have ellipsoid ascospores with a median septum at least 3 µm thick. The “group” is restricted to a smaller core to exclude *Caloplaca cirrochroa*, *C. marina*, *C. microthallina*, *C. scopularis*, *C. verruculifera*, etc. The characters employed in the differentiation of the taxa are described in detail, with in-depth accounts of thallus features and tissue types, as well as of exciple types, paraphyses, ascospores, and conidia. In the *C. saxicola* group itself, eleven species and five subspecies are recognized, and a further ten species considered as closely related are also treated in detail (incl. *C. aurantia*, *C. flavescens*, *C. thallincola*, and sorediate species). For each species information is provided on synonyms, types, in some cases a transcription of the original diagnosis, illustrations, distribution, ecology, specimens examined, and there are particularly full descriptions and discussions (under “Remarks”). The microscopic features of each accepted species are shown in one or more full-pages of line drawings, and macroscopic appearances of the thalli are illustrated in a series of coloured plates. The colour is especially valuable here, as the nuances of oranges and yellows can aid species recognition in these lichens. Something I did miss was any photomicrographs of sections to show the different tissue structures of the cortices and the exciple types to help relate the necessarily somewhat schematic line drawings to what is actually seen in the microscope. The revision is based entirely on morphological and anatomical features, to some extent supported by principal component analyses, and no molecular data in support of the revised taxonomy are presented. This carefully executed work will need to be taken into account in re-assessing which taxa are actually present and which names have been wrongly used, in national and regional checklists. For example, *C. arnoldii* of UK authors is *C. arnoldii* subsp. *obliterata*, and *C. saxicola* includes *C. murorum*; the name *C. saxicola* is to be proposed for conservation. This may not be the last word on the group, especially as more material from Asia and the Southern Hemisphere becomes available and the concepts merit challenging by molecular phylogenetic approaches, but it represents a major step forward.

DAVID L. HAWKSWORTH

*Departamento de Biología Vegetal II, Facultad de Farmacia
Universidad Complutense de Madrid, Plaza Ramón y Cajal, E-28040 Madrid, Spain*

Revision of the corticolous *Opegrapha* species from the Palaeotropics.

By D. Ertz. 2009. J. Cramer in der Gebrüder Borntraeger Verlagsbuchhandlung, Johannesstraße 3A, 70176 Stuttgart, Germany. <mail@schweizerbart.de>. Pp. 176, figs 124. Bibliotheca Lichenologica No. 102. ISBN 978-3-443-58081-0. Price: € 73.00.

A major obstacle to getting to grips with crustose lichens in tropical countries has been the lack of authoritative revisions. Reassessments are needed of the thousands of names introduced in the nineteenth century, often published with the briefest of diagnoses and no illustrations. Good progress to that end has been made with graphids, thelotremes, and some pyrenocarpous groups, and here *Opegrapha* species on trees or wood are tackled. But this work does not only deal with palaeotropical material from the past (from tropical Africa, Asia, and Australia), it is also based on collections made by the author in Benin, Gabon, La Réunion, Rwanda, and Zambia. In all, 52 species are accepted, of which seven are tentatively (and responsibly) named using “aff.”, eight are described as new to science, and two proved to be lichenicolous; 31 names are newly recognized as synonyms; six species were found to belong in other genera (notably *Arthonia*, *Enterographa*, *Lecanographa*, and *Patellaria*); and nine names are categorized as doubtful or otherwise excluded. A staggering 17 generic names are listed as synonyms of *Opegrapha*. There is a user-friendly key based on the artificial but pragmatic categories of spore septation, but no attempt to discuss phylogenetic relationships within these species or the genus as a whole. For each accepted species, there is the expected information on synonyms and types, detailed descriptions; notes on chemistry, ecology, and distribution; highly pertinent “observations”; and lists of additional specimens examined. The accompanying illustrations comprise photomicrographs showing the habit and details of the lirellae, line drawings of asci and ascospores; and maps of the known world distributions. Photomicrographs of vertical sections of the lirellae, showing details of the excipular structures, would have added value. Damien is to be congratulated on yet another meticulously executed contribution to his elucidations of opegraphoid lichens, and in this case one which also forms a base-line for further exploration and identification of existing collections from the Palaeotropics. A companion work to tie these results into the taxa described from the Neotropics would now be most welcome.

DAVID L. HAWKSWORTH

*Departamento de Biología Vegetal II, Facultad de Farmacia
Universidad Complutense de Madrid, Plaza Ramón y Cajal, 28040 Madrid, Spain*

Porosty pięrea kosodrzewiny w Polskiej części Tatr Wysokich. By M. Węgrzyn.

2009. Instytut Botanik im. W. Szafera, Polska Akademia Nauk, ul. Lubicz 46, 31-512 Kraków, Poland. <l.frey@botany.pl>. Pp. 117, figs 10, maps 224. ISBN 978-83-89648-64-8. Price: € 25.00.

This is an account of the lichens of the dwarf pine (*Pinus mugo*) belt of the Polish part of the High Tatra Mountains, which occurs at an altitude of around 1550-1800 m. Forty eight sites were examined, which yielded a total of 225 lichens and five lichenicolous fungi — roughly 25% of all the lichen species known from the Polish Tatra Mountains as a whole. For each species, information on the ecology and sites in which they were found is presented. Most species are characterized as alpine, with a few subalpine and many “multizonal” species. However, in the locality data presented, many of the species occurred in only 1-3 sites and 64% were categorized as “very rare”. Indeed, 89 species were ones classified as “vulnerable or endangered”, and 13 as “critically endangered” in Poland as a whole; the latter include *Bryoria implexa*, *Catolechia wahlenbergii*, *Evernia divaricata*, *Hypogymnia vittata*, and *Solorina crocea*. Some of the results were somewhat surprising to me, for example a single occurrence of *Xanthoria parietina*, and also only one of *Alectoria sarmentosa* as opposed to ten of *A. ochroleuca* (the reverse of the situation on the high Scottish mountains). Distribution maps are provided for all but one of the lichen species. The area had not been given much attention by lichenologists since Motyka dismissed it as very poor in lichens in the mid-1920s, but it clearly is a site of conservation importance with so many species that are rare or endangered in Poland today. Although in Polish, there is a welcome one-page summary in English, and the legends to the tables and figures are also given in both languages. This is clearly a carefully executed study, and one that will provide a baseline against which to monitor any of the future changes that might be expected to occur as a result of climate change.

DAVID L. HAWKSWORTH

*Departamento de Biología Vegetal II, Facultad de Farmacia
Universidad Complutense de Madrid, Plaza Ramón y Cajal, E-28040 Madrid, Spain*

GUIDES

Macrofungi associated with oaks of eastern North America. By D.E. Binion, S.L. Stephenson, W.C. Roody, H.H. Burdsall, Jr, L.N. Vasilyeva & O.K. Miller, Jr. 2008. West Virginia University Press, PO Box 6295, Morgantown, WV 26506, U.S.A. <press@wvu.edu>. Pp. xv + 467, plates. ISBN 978-1-933202-36-5. Price \$44.95.

Not the shape of the mushrooms, but their ecology is the main organizer of this guidebook in which macrofungi associated with oaks in the eastern parts of North America (without Mexico) are treated. After a short introduction to the oak habitat and fungi in general, mushrooms are shown in three sections (mycorrhizal fungi, parasites, and decomposers). Over 200 species are treated, each one on two pages with a photo on the left and the text on the right. A short

list of references and tips for further reading, a glossary, and a short chapter on mushroom poisons follow at the end of the book. There are no keys to the species that are treated. The photos are in general of very good quality (a few are out of focus), the names are usually up to date, and attention has been paid to details, such as the names of the authors of the species. Data on habitat and distribution are a little too scant, and in some cases wrong; e.g. *Tremella* is put in with the decomposers, though it parasitizes other fungi.

It is refreshing to see so many polypores and crust fungi in a 'mushroom' guide! The rare species *Globifomes graveolens* and *Porodisculus pendulus* are well illustrated, together with their more common relatives. The mycorrhizal life style of some of some of the crust-forming species might come as a surprise to the users. Determining which lifestyle your fungus has may be difficult, but by flipping through the pages you get a lot of extra knowledge from this heavy book.

In short, a well-executed, interesting, and well-illustrated book.

Mushrooms and other fungi of the midcontinental United States. (Bur Oak Guide). 2nd Ed. By D.M. Huffman, L.H. Tiffany, G. Knaphus & R.A. Healy. 2008. University of Iowa Press, 119 W. Park Road, 100 Kuhl House, Iowa City, IA 52242-1000, U.S.A. <uiopress@uiowa.edu>. Pp. 384, plates 300, figs 21. ISBN 978-1-58729-627-7. Price \$39.95.

This is the second edition of a guide to the mushrooms of Iowa, with more species (especially ascomycete truffles) covered and some photographs replaced. This book has the usual set up of an introduction to mushrooms, a subdivision into larger groups (e.g., *Agaricales*, *Boletales*, *Aphyllophorales*, gasteromycetes, jelly fungi, and ascomycetes) with species treated alphabetically and — within the *Agaricales* — further subdivided according to family. A glossary, and lists of general and technical references complete the book. The layout is clear, with photos on the left page and (short) descriptions on the right, usually with two species on a page. Keys to the around 300 species that are treated in the book are also given.

Some photos are very good, but some of the older ones are too dark with colours too inaccurate for identification purposes. Additionally, some names do not seem plausible. As is common in most guides, the source for the photos and descriptions is not given.

Names have been updated in some cases (e.g. *Microstoma floccosum* replaces *Sarcoscypha floccosa* of the first edition), but *Hygrophorus* has been retained for species that are now universally accommodated in *Hygrocybe*, the family *Lepiotaceae* no longer exists, nor is there any longer an order 'Aphyllophorales' or the equally artificial 'Gasteromycetes'.

Nevertheless, this remains a nice first introduction to the fungi of this midcontinental state, where forests and mushroom guides are not very common.

Mushrooms of the Pacific Northwest. Timber Press Field Guide. By S. Trudell & J. Ammirati. 2009. Timber Press, 133 SW 2nd Avenue #450, Portland, OR 97204, U.S.A. <info@timberpress.com>. Pp 352, plates 530, figs 22. ISBN 9780881929355. Price \$27.95.

This book is like a whiff of fresh air in mushroom field guide land. It clearly states the geographical area that it covers, the introduction tells about the life styles of mushrooms, the hazards and pleasures of mushroom hunting, the pit falls of identification keys, and of course poisonings and much more. The bulk of the book is taken up by photos and descriptions of mushrooms. Spore print colour codes the top of the page; the descriptions are informative and well written (not in telegraph style), and for many photos a collection number is given, so the names can be verified. The emphasis is not on the charismatic megafunga, although certainly big mushrooms are treated, but the less conspicuous fruitbodies feature prominently. Names are generally up-to-date, and author names are consistently spelled in the same way. Names also seem correct and to fit the pictures. The only negative comment I can make is that the photos are a little on the small side; making them bigger would have increased the price of the book significantly. The book is slightly too big and too beautiful to be taken out into the field, but it would definitely like to live in your car, for the after-the-hunt identification spell. The price is also extremely reasonable, and this book deserves to be used all through the western states.

Mushrooms of the southeastern United States. By A.E. Bessette, W.C. Roody, A.R. Bessette & D.L. Dunaway. 2007. Syracuse University Press, 621 Skytop Road, Suite 110, Syracuse, NY 13244-5290, U.S.A. <supress@syr.edu>. Pp. 400, plates 527. ISBN 978-0-8156-3112-5. Price \$95.00.

The southeastern parts of the U.S.A. are well known for their plant and fungal diversity, but field guides to the latter are rare and cover only parts of this hugely diverse area. The present book by Bessette et al. fills this gap and aims at illustrating and describing over 450 species from various fungal groups forming macroscopic basidiocarps. Field characteristics are emphasized in the keys and descriptions. The format is similar to that of the earlier book by Bessette et al. (1997) that covers the northeastern parts of the U.S.A.: all plates with 6 figures per page cluster together, followed by all descriptions. All are organized alphabetically by group, and the groups are morphologically recognized (in other words, not phylogenetically). The introduction to mycology and a glossary will be helpful for the mycological novice. There are

two sections of references, one with technical literature, the other with so-called non-technical publications. Four appendices, with scant information on microscopic examination of mushrooms, chemical reagents used in mushroom identification, classification, and mycophagy (including recipes and photos of tempting dishes) complete the book.

The guide gives a good first introduction to the mushroom flora of the area, with the emphasis on the larger and showier species. It is very nice to see a good selection of subtropical polypores depicted. However, there are many shortcomings in the details.

It is not at all clear where the descriptions come from. The authors claim that they are based on the original descriptions. This is in many cases not true (e.g. the original description of *Leucocoprinus cepistipes* does not fit the present interpretation of the species and is extremely unspecific). The second problem is that there is no specified information on the photos — in the ideal situation descriptions should be based on the material depicted, which has been vouchered and is available for further study in a publicly accessible herbarium. Field guides are in particular an excellent venue to make the amateur mycologists aware and familiar with the large changes happening in our understanding of the fungal phylogenies and consequently in classifications. Unfortunately, the argument that all is in flux has been applied, resulting in no changes at all. Two examples: the genus *Paxillus* still harbours both *P. involutus* and *P. atrotomentosus*, although the latter, a non-mycorrhizal species, has long been accepted in *Tapinella*; likewise, *Omphalotus illudens* is called *O. olearius*, which is a strictly European species. The nomenclature and author citations are appalling, as if there are no easily accessible on-line data files available.

In conclusion, this book gets a mixed report — beautiful well-photographed mushrooms make up for the mistakes in the details and the outdated nomenclature.

Bessette AE, Bessette AR, Fischer DW, 1997. Mushrooms of northeastern North America. Syracuse University Press.

Milk mushrooms of North America. A field identification guide to the genus *Lactarius*. By A.E. Bessette, D.B. Harris & A.R. Bessette. 2009. Syracuse University Press, 621 Skytop Road, Suite 110, Syracuse, NY 13244-5290, U.S.A. <supress@syr.edu>. Pp. 256, plates 263. ISBN 978-0-8156-3229-0. Price \$110.00.

Though not really a field guide, this treatment of the genus *Lactarius* for North America (excluding Mexico) has that feel, as it does not cover microscopic characters, and the keys and descriptions of *Lactarius* species are written in language that should be clear for a beginning amateur. Besides the genus *Lactarius*, a few species from related genera *Zelleromyces*, *Bondarzewia*,

Arcangeliella, and two fungal parasites of *Lactarius* species are illustrated and provided with descriptions. An introduction to the characters of the genus, the edibility, ecology, and field characters lay the basis for the bulk of the book. Dichotomous keys treat the species divided by region (western species vs eastern species). The plates are grouped together with 3 figures per page, and are organized alphabetically by species, often with multiple photos per species to show the colour variation (unfortunately it is not often clear whether the colour variation is in the mushroom or due to the photo). The descriptions are also alphabetical. Approximately two-thirds of the species are represented by a colour photo. Source information is not given for the photos or the descriptions, nor is there an indication whether the photos are connected to the descriptions. The authors are most familiar with the northeastern species, and the ecology and distribution of the western species are scantily covered. More attention could have been paid to the details, such as the references and the author names for each species. Recent literature and developments in *Lactarius* classification have not been incorporated in this book, unfortunately. Future research will probably result in the rejection of many of the European names that are applied to American species. The book serves perfectly as a colour guide to the much more technical and out-of-print work by Hesler & Smith (1979), but it falls short of being a critical assessment of the genus in North America. Last but not least, the price will be a severe impediment for wide usage of this book.

Hesler LR, Smith AH, 1979. North American species of *Lactarius*. The University of Michigan Press, Ann Arbor.

BOOK ANNOUNCEMENTS

***Agaricus* L. *Allopsalliota* Nauta & Bas. *Fungi Europaei* 1. 2nd Ed. By L. A. Parra Sánchez. 2008. Edizioni Candusso, Via Ottone Primo 90, 17021 Alassio SV, Italy. <maxcandusso@libero.it>. Pp. 824, Plates 396 + 42, figs 114. ISBN 88-901057-7-1. Price € 75.00.**

Compléments à la Flore des champignons supérieurs du Maroc de G. Malençon et R. Bertault. By J.-C. Maire, P.-A. Moreau, G. Robich (editors). 2009. Confédération européenne de mycologie méditerranéenne, Nice. Pp. 775, plates 58, figs 50. No ISBN number. Price ca. € 116.00.

Common interior Alaska cryptogams. Fungi, lichenicolous fungi, lichenized fungi, slime molds, mosses, and liverworts. By G.A. Laursen & R.D. Seppelt. 2009. University of Alaska Press, PO Box 756240, Fairbanks, AK 99775, U.S.A. <fyppress@uaf.edu> Pp. 256, plates 338, figs 113. ISBN 9781602230583. Price \$26.95.

Conocybe Fayod. Pholiotina Fayod. Fungi Europaei 11. By A. Hausknecht. 2009. Edizioni Candusso, Via Ottone Primo 90, 17021 Alassio SV, Italy. <maxcandusso@libero.it>. Pp. 968, plates 46 + 403, figs 150, maps 154. ISBN 88-901057-8-X. Price € 79.00.

Edible wild mushrooms of Illinois and surrounding states: A field-to-kitchen guide. By J. McFarland & G.M. Mueller. 2009. University of Illinois Press, University of Illinois Press, 1325 South Oak Street, MC-566, Champaign, IL 61820-6903, U.S.A. <uipress@uillinois.edu>. Pp. 232, plates 292. ISBN 978-0-252-07643-5. Price \$24.95.

Fungi from different environments. By J.K. Misra & S.K. Deshmukh (editors). 2009. Science Publishers, 234 May Street, P.O. Box 699, Enfield, NH 03748, U.S.A. <info@scipub.net>. Pp. 405. ISBN 978-1-57808-578-1. Price \$119.95.

Fungus flora of tropical Africa. Volume 2. Monograph of *Lactarius* in tropical Africa. By A. Verbeken & R. Walley. 2010. National Botanic Garden of Belgium, Nieuwelaan 38, 1860 Meise, Belgium, <sales@br.fgov.be>. Pp. 151, plates 54. ISBN 978-90-726-1981-5. Price € 50.00.

Il genere *Crepidotus* in Europa. By G. Consiglio & L. Setti. 2009. Associazione Micologica Bresadola, Via A. Volta, 46, 38100 Trento, Italy. <amb@ambbresadola.it> Pp. 344, numerous plates, figs. No ISBN number. Price € 50.00 or € 60.00.

The kingdom *Fungi*. The biology of mushrooms, molds and lichens. By S.L. Stephenson. 2010. Timber Press, 133 SW 2nd Avenue #450, Portland, OR 97204, U.S.A. <info@timberpress.com>. Pp. 328, plates 124. ISBN 978-0-88192-891-4. Price \$34.95, £ 20.00.

Notable macrofungi from Brazil's Paraná pine forests. Macrofungo notáveis das florestas de Pinheiro-do-Paraná. By A.A.R. de Meijer. 2009 (2008). Embrapa Informação Tecnológica, Parque Estação Biológica, Caixa Postal 040315, Brasília, DF, Brazil 70770-901. <vendas@sct.embrapa.br>. Pp. 418, plates 102. figs 47. ISBN 978-85-89281-17-1. Price R\$120.00.

Pictorial atlas of soil and seed fungi: Morphologies of cultured fungi and key to species. 3rd Ed. By T. Watanabe. 2010. Routledge, Taylor & Francis Group, 270 Madison Avenue, New York, NY 10016, U.S.A. ISBN 978-1-4398041-9-3. Price \$143.96.

Quelques espèces nouvelles ou mal délimitées d'*Amanita* de la sous-section *Vaginatinae*. 1^o complément à *Amaniteae*, Fungi Europaei 9. By P. Neville † & S. Poumarat. 2009. Fungi non delineati LI-LII. Edizioni Candusso, Via Ottone Primo 90, 17021 Alassio SV, Italy. <maxcandusso@libero.it>. Price € 26.00.

Schimmelpilze und deren Bestimmung. 3. neu bearbeitete Aufl. By L.E. Petrini & O. Petrini. 2010. J. Cramer in der Gebrüder Borntraeger Verlagsbuchhandlung, Johannesstraße 3A, 70176 Stuttgart, Germany. <mail@schweizerbart.de>. Pp. x + 170, figs 33. ISBN 978-3-443-50035-1. Price € 39.80.

Taxonomic studies on *Agaricales* of Hokkaido, Northern Japan, with special reference to *Melanoleuca*, *Oudemansiella*, *Xerula*, *Volvariella* and *Pluteus*. By S. Takehashi, T. Hoshino & T. Kasuya. 2010. Non profit organization The forum of Fungi in northern Japan, Kanayama 1-3 10-3, Teine-ku, Sapporo, Hokkaido, 006-0041, Japan. <BXG05024@nifty.com>. Available from SANO Books, Sakae-machi 6-19, Aioi-city, Hyogo 678-0008, Japan, <e_sano@d2.dion.ne.jp>. Pp. 145 + xiii, numerous plates, numerous figs. ISBN 978-4-9905010-0-6. Price ¥ 5.600.